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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,371

11/04/2003

Atsuhiro Sumiya

461-152

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23117

7590

09/05/2006

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EXAMINER

TRINH, MINH N

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/700,371	SUMIYA ET AL.	
	Examiner	Art Unit	
	Minh Trinh	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 12-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 4-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of species 1A (claims 1-11) filed on 7/10/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Further, it is noted that the correct power of attorney for this case should be Larry Nixon rather than Micheal Noe Jr. as mistaken or wrongly indicated in paragraph 3 of the prior Action. Thus, claims 12-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/10/06. These claims are suggested to be cancelled.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "Method for fabricating laminate type dielectric element" or the like.
3. The abstract should be revised to reflect the elected method invention.
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

Art Unit: 3729

requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. "A method" (claims 2-11) should be replaced with :--The method--, to reflect the dependent claim formats.

What is being referring as "a ceramic material of a metal oxide containing a lead oxide"(claim 1, lines 11-12).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 3729

7. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokotani et al (4,586,972) in view of Applicant admitted Prior Art (APA, discussed at pages 2-5).

Yokotani et al disclose the method of producing a laminated dielectric element comprising: printing electrodes by applying a paste material for the base metal electrodes containing an oxide of a base metal onto the surfaces of at least one side of the ceramic green sheets obtained by molding, into the form of a sheet of a ceramic material of a metal oxide (see Figs. 1-2 a-e, col. 1-2, 6, etc.); laminating and adhering the ceramic green sheets onto which the paste material for the base metal electrodes is applied to fabricate a laminate thereof (see Fig. 1(d), and the discussed at bottom col. 1). Yokotani et al reference does not include, the steps of: reducing the electrodes to form base metal electrode layers by heating the laminate in a heating furnace while flowing an atmospheric gas and by reducing the paste material for the base metal electrodes and sintering the laminate. The APA, (i.e., page 1, lines 20-37 and the bottom of page 4 to page 5) discloses the above method steps includes the reducing the electrodes to form base metal electrode layers by heating the laminate in a heating furnace, and the use of lead (Pb) as metal oxide. Further, regarding the reducing the electrodes, the paste material for the base metal electrodes is reduced that the amount of the base metal oxide remaining in the base metal electrode layers is not larger than 20% by weight and that the amount of lead liberated from the ceramic material is not larger than 30 atomic % within 5000 Å from the surfaces of the base metal electrode layers, such configurations would be obvious as matter of design choice because the

Art Unit: 3729

change in size and/or shape is depending on the intended use or as well as manufacturing requirements, etc. Therefore, I would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the APA's teachings and the design choice for the size and shape as described in great details above onto the invention Yokotani et al in order to form a desired structure which meet manufacturing requirements, etc.

Furthermore, it would have been an obvious matter of design choice to choose any desired electrodes reducing factor, include the above where the reduced amount of the base metal oxide remaining in the base metal electrode layers is not larger than 20% by weight and that the amount of lead liberated from the ceramic material is not larger than 30 atomic % within 5000 Å from the surfaces of the base metal electrode layers, etc., since applicant has not disclosed that the above claimed reduced in size would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well by utilizing the method of reducing the electrodes size to certain size or thickness as taught Yokotani et al and/or APA.

As applied to claims 1-3, noting APA discloses the limitations recited in these claims (see pages 1-2).

As applied to claims 8-9, the Yokotani et al disclose the electrode with in range of 2-14 (see col. 4, lines 41-45), and the limitation of claim 9 (see col. 2, lines 4-10, 49-55).

As applied to claims 10-11, noting APA discloses the limitations recited in these claims (see page 1, lines 15-17, and the dewaxed at page 1, lines 25-26, etc.).

Art Unit: 3729

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Prior art cited for their teachings of method for making laminate dielectric or the like, etc.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (571) 272-4569. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mt
8/31/06


MINH TRINH
PRIMARY EXAMINER